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Priority: None

Applicant: Tokyo Shibaura Denki K.K., Kawasaki, Japan

Title: Current-limiting resistance element

Detailed Description of the Invention:

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The object of the present invention is to provide a current-limiting resistance element with small electric resistance, good thermal responsiveness and a great current-limiting effect. Namely, the present invention relates to a current-limiting resistance element, wherein there is integrally calcined a plurality of film-type oxide positive temperature coefficient resistors laminated with branch electrode surface layers sandwiched, said branch electrode surface layers being distributed with the shape doubled in such a manner that the sections exhibit the state of joint teeth and engage with each other, and one or the other of the branch electrode surface layers in the respective states is conductively connected to one or the other the opposing electrode surface layers provided on the two opposing surfaces of the calcined body.

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The current-limiting resistance element produced in the above-described manner has the branch electrode surface layer sandwiched between the lamination interfaces of the film-type resistor, and they are integrally calcined without using an adhesive. Therefore, the thermal stability is realized. Substantially, the above element is equivalent to the element obtained thinly with an area. Thus, the resistance value of the element can be decreased, and the watt loss by the current-limiting resistance element can be reduced.

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